



Microtec R&D Department

MANUAL

User manual for panel display

Date:
18/10/2019

Pages.
1 of 7

Written by: Luca MICHELI

Last revision:2.00 (18-10-2019)

Panel display

Revision	Date	Note
1.00	19.11.2018	Emissione
2.00	18.10.2019	Translation in English



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SAFETY INSTRUCTIONS

This manual gives the necessary information for operating correctly the panel display with Microtec inverters and motor control boards. Read and understand this manual before operating the equipment. Failure to do so could result in personal injuries or equipment damage!

More precisely this shall avoid:

- Danger arising from the operation
- Danger to the operator
- Losses of time and increases of equipment reliability and durability

This manual should be considered as a permanent part of the equipment and should remain always with it!

Customer Service

For further information please contact the manufacturer of the equipment:

Microtec S.r.l.

Via Avris, 3/A

21019 Caravate (Varese) – Italy

Phone: +39 0332 601731

Email: info@microtec.cc

1.1. GENERAL NOTES

- All information in this publication is based on the latest product information available at the time of approval for printing.
- Microtec S.r.l. reserves the right to make changes at any time without notice and without incurring any obligation.
- Illustrations may vary.
- No part of this publication may be reproduced without written permission.
- This manual should be considered a permanent part of the product and should remain with it if it is resold.

1.2. USER'S INFORMATION

Before starting the equipment: please read this description and note carefully the safety instructions.

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CONFIGURATION AND CONNECTIONS

Configuration with only inverter and panel display:

Panel display is connected to the inverter with a four wires connection: two for communication and two for power supply (supplied directly from the inverter).

Read the inverter's manual to identify point of connection for any version of the inverter; however any wiring follow this order:

CONNECTOR	PIN	DESCRIPTION
	1 – wire red	+12V battery
	2 – wire white	CAN_H
	3 – wire green	CAN_L
	4 – wire black	Battery GND

We suggest to use for connection our cable 1.200.000.00050



Configuration with inverter, motor control board and panel display:

Panel display is connected to the motor control board with a four wires connection: two for communication and two for power supply (supplied directly from the inverter).

Read the motor control manual to identify point of connection; however wiring follow this order:

CONNECTOR	PIN	DESCRIPTION
	1 – wire red	+12V battery
	2 – wire white	CAN_H
	3 – wire green	CAN_L
	4 – wire black	Battery GND

We suggest to use for connection our cable 1.200.000.00050



Connector of the cable has to be inserted on the counterpart placed on the back of the panel display



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WORKING MODE



Red switch [ON] – [OFF] is the general switch of the panel (not of the inverter or motor control board).
You can connect and disconnect the panel “on the fly” without any problem, so also with system already working.

GENERATION START PROCEDURE

Red switch – OFF → Display OFF

Red switch – ON → Display ON → It’s possible start / stop of generation.

Long press of START button → Command to start / stop generation.

START BUTTON:

Short press of START button permits to move between configuration menu and INFO pages.

Long press of START button during start up of the panel display enables the “SuperUser” modality that permit to view info pages, extended data and possibility to have access to the configuration pages (for example permits to modify parameters).



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CONFIGURATION PAGE → VISUALIZATION, DATA VARYING AND SAVING

With generation ON:

Short press of START button permits to navigate between different visualization pages.

Long press of START button always turns off generation.

LED meaning:

Generation OFF without alarms →	YELLOW LED – slow blinking RED LED – off
Generation OFF with alarms →	YELLOW LED – off RED LED – on
Generation OFF with alarms and cooling working →	YELLOW LED – off RED LED – fast blinking
Generation beginning →	YELLOW LED – fast blinking RED LED – off
Generation ON →	YELLOW LED – on RED LED – off

Visualization:

Page 1 Data:

Voltage OUT [V]	-	Power OUT [kVA]
Current OUT [A]	-	Rotation speed [RPM]

Page 2 Data:

Inverter temperature [°C]	-	Power OUT [kVA]
DClink voltage [V]		

Page 3 Data (only in SuperUser modality):

Alternator frequency [Hz]	
Working hours [hours]-[minutes]	

Page 4 Data (only in SuperUser modality):

Data 1 [cnt]	-	Data 2 [cnt]
Data 3 [cnt]	-	Data 4 [cnt]

*For 15 and 20kVA machines, Data 1 and Data 2 are the temperatures of the two modules of the inverter stage (inverter temperature is the maximum of them)

Actual data page (automatic page refresh every 2s):

DATA PLATE – 1:

Voltage [V]	-	Power [kVA]
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DATA PLATE – 2:

Output frequency [Hz]	-	Current [A]
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DATA PLATE – 3:

Version and revision hardware - [version] [revision]

DATA PLATE – 4:

Serial number [xxxxxx] - Type [yyyyyy]

DATA PLATE – 5 (only in SuperUser modality):

Version and revision Firmware [version] [revision]

DATA PLATE – 6 (only in SuperUser modality):

String for brand or product identification field [ssssssssssssss]

Page 5 Configuration (only in SuperUser modality):

Here it's possible to modify number of poles

Long press Start to enable SET function and short press to change value

When you found the right value of pole long press Start to save value, SET is deleted.

In case of alarm, this is indicated as a main information

ALARM LIST

- Permanent output short circuit	→	"SHORT CIRCUIT"
- Permanent output overload	→	"OVER LOAD"
- Low output voltage	→	"UNDER VOLTAGE"
- High inverter temperature	→	"OVER TEMPERATURE"
- Communication error	→	"LOST COMM."
- Internal voltages error	→	"LOW DRIVE VOLT"
- Synchro error (*)	→	"SYNCHRONISM"
- High alternator frequency (*)	→	"OVER SPEED"
- High DCLink voltage (*)	→	"DC OVER VOLTAGE"
- Input phase missing (*)	→	"MISSING PHASE"
- Internal parameter error	→	"PARAM ERROR"
- General error	→	"GENERAL ERROR"

(*) Only for products that implement this functions.